

IN THE CLAIMS:

Claim 1 (Previously presented) A tool set for implanting a spinal rod in a patient; said tool set comprising:

- a) a pair of end guide tools;
- b) each of said end guide tool being non integral with and adapted to be selectively joinably attached at a lower end thereof to a respective spinal implant bone screw;
- c) each of said end guide tools including a longitudinal guide channel extending upwardly from said lower end thereof; each of said channels being sized and shaped to be adapted to receive opposite ends of the rod for operably guiding the rod ends toward respective bone screws;
- d) each of said end guide tools have a helically wound first guide and advancement structure located near a bottom thereof;
- e) said first guide and advancement structure providing a helical pathway adapted to rotatably and matingly receive a mating structure of a bone screw closure top; and
- f) said first guide and advancement structure also being adapted to be aligned during joining with a respective bone screw with a second guide and advancement structure on such a respective bone screw so as to

continue said helical pathway when a respective guide tool is joined with such a respective bone screw and so as to be adapted to transfer the closure top between a respective guide tool and a respective bone screw upon rotation of the closure top.

Claim 2 (Previously presented) An intermediate guide tool for use with a separate spinal implant bone screw; said tool including:

- a) lower attachment structure adapted for removable attachment to a respective bone screw;
- b) a longitudinal pass through slot extending from a bottom thereof upward and being adapted to receive therethrough and guide the rod to a bone screw attached to said intermediate guide tool;
- c) a helically wound first guide and advancement structure located near a bottom of said intermediate guide tool;
- d) said first guide and advancement structure providing a helical pathway adapted to rotatably and matingly receive a mating structure of a bone screw closure top; and
- e) said first guide and advancement structure also being adapted to be aligned with a second guide and advancement structure on a bone screw so as to continue said helical pathway when said guide tool is attached

to a bone screw and so as to be adapted to transfer the closure top between said guide tool and the non integral bone screw upon rotation of the closure top.

Claim 3 (Previously presented) A vertebral support rod implantation kit adapted for use with a plurality of vertebra including:

- a) a plurality of polyaxial bone screws with each bone screw being adapted for implantation in one vertebra; each of said bone screws having a mating attachment structure;
- b) an elongate rod sized and shaped to extend between a pair of end bone screws of said plurality of bone screws;
- c) a pair of end guide tools separate from said bone screws;
- d) each of said end guide tools being non integral relative to a bone screw and including an end guide tool attachment structure at a lower end thereof that operably and removably connects with said bone screw mating attachment structure of a respective bone screw;
- e) each of said end guide tools including a longitudinal guide channel extending upwardly from near said lower end thereof; each of said channels being sized and

shaped to slidably receive opposite ends of the rod for operably guiding the rod ends toward respective bone screws;

- f) each of said end guide tools have a first helically wound guide and advancement structure located near a bottom thereof;
- g) said first guide and advancement structure providing a helical pathway adapted to rotatably and matingly receive a mating guide and advancement structure of a bone screw closure top; and
- h) said first guide and advancement structure also being operably alignable with a second guide and advancement structure located on a respective bone screw so as to continue said helical pathway when a respective guide tool is selectively joined to a respective bone screw and so as to be adapted to transfer the closure top between a respective guide tool and the bone screw upon rotation of the closure top.

Claim 4 (Previously presented) A vertebral support rod implantation kit adapted for use with a plurality of vertebra including:

- a) a plurality of polyaxial bone screws with each bone screw being adapted for implantation in one vertebra;

- each of said bone screws having a mating attachment structure;
- b) an elongate rod sized and shaped to extend between a pair of end bone screws of said plurality of bone screws;
  - c) a pair of end guide tools independent of but selectively joinable with a respective one of said bone screws;
  - d) each of said end guide tools including an end guide tool attachment structure at a lower end thereof that is non integral with respect to one of said bone screws but that is operably and removably joinable with said bone screw mating attachment structure of a respective bone screw;
  - e) each of said end guide tools including a longitudinal guide channel extending upwardly from near said lower end thereof; each of said channels being sized and shaped to slidably receive opposite ends of the rod for operably guiding the rod ends toward respective bone screws;
  - f) at least one intermediate guide tool having an intermediate guide tool attachment structure that operably and removably connects with said mating attachment structure of a respective bone screw;

- g) each of said intermediate tools including a longitudinal pass through slot extending from the bottom thereof upward and operably receiving therethrough and guiding intermediate locations along the rod to a respective bone screw attached to the intermediate guide tool;
- h) each of said end and intermediate guide tools have a first helically wound guide and advancement structure located near a bottom thereof;
- i) said first guide and advancement structure providing a helical pathway adapted to rotatably and matingly receive a mating guide and advancement structure of a bone screw closure top; and
- j) said first guide and advancement structure also being operably alignable with a second guide and advancement structure located on a respective bone screw when selectively joined thereto so as to continue said helical pathway when a respective guide tool is attached to a respective bone screw and so as to be adapted to transfer the closure top between a respective guide tool and the bone screw upon rotation of the closure top.

Claim 5 (Original) The kit according to Claim 3 including:

- a) the closure top having the mating guide and advancement structure thereon.

Claim 6 (Previously presented) In a guide tool for seating a rod in a spinal implant bone screw and in combination with the bone screw; the improvement comprising:

- a) said guide tool being non integral with said bone screw and being selectively operably connectable to said bone screw; said guide tool having a lower first guide and advancement structure;
- b) said bone screw having upwardly extending arms forming a rod receiving channel therein and having a second guide and advancement structure;
- c) said first and second guide and advancement structures being positioned and aligned when said guide tool is connected to said bone screw so as to form a continuous helically wound path.

Claim 7 (Previously presented) The combination of Claim 6 including:

- a) a closure top for closing said rod receiving channel between said arms and having thereon a helically wound mating guide and advancement structure that is operably

received along said helically wound path upon rotation.

Claim 8 (Currently Amended) The combination according to Claim 8  
7 wherein:

- a) said closure top mating guide and advancement structure  
and said bone screw second guide and advancement  
structure include interlocking members so as to be  
interlocking upon being mated.

Claim 9 (Currently Amended) The combination according to Claim 9  
8 wherein:

- a) said first guide and advancement structure has a square  
thread.